



## Motor ability and self-esteem: The mediating role of physical self-concept and perceived social acceptance



Mirko Schmidt\*, Markus Blum, Stefan Valkanover, Achim Conzelmann

Institute of Sport Science, University of Bern, Bremgartenstrasse 145, 3012 Bern, Switzerland

### ARTICLE INFO

#### Article history:

Received 21 May 2014

Received in revised form

19 September 2014

Accepted 3 November 2014

Available online 4 December 2014

#### Keywords:

Sport competence

Self-perceptions

Adolescents

Gender

Structural equation modelling

### ABSTRACT

**Objectives:** One important issue in sport and exercise psychology is to determine to what extent sports and exercise can help to increase self-esteem, and what the underlying mechanism might be. Based on the exercise and self-esteem model (EXSEM) and on findings from the sociometer theory, the mediating effect of physical self-concept and perceived social acceptance on the longitudinal relationship between motor ability and self-esteem was investigated.

**Design:** Longitudinal study with three waves of data collection at intervals of ten weeks each.

**Method:** 428 adolescents (46.3% girls,  $M_{age} = 11.9$ ,  $SD = .55$ ) participated in the study, in which they performed three motor ability tests and completed paper-and-pencil questionnaires for physical self-concept and perceived social acceptance, as well as for self-esteem, at all three measuring points.

**Results:** Using structural equation modelling procedures, the multiple mediation model revealed both physical self-concept and perceived social acceptance to be mediators between motor ability and self-esteem in the case of boys. In girls, on the other hand, the mediation between motor ability and self-esteem only takes place via physical self-concept.

**Conclusions:** Gender differences in the relationship between motor ability and self-esteem suggest gender-specific interventions aimed at promoting self-concept.

© 2014 Elsevier Ltd. All rights reserved.

Global self-esteem is traditionally seen as a central indicator for mental health and an explanatory variable for human behavior (Rosenberg, 1965). People with high self-esteem are more emotionally stable, less prone to experiencing depression and display higher academic achievements (Marsh & O'Mara, 2008). From a multidimensional perspective on the self, which is now widely accepted in many psychological disciplines, global self-esteem marks the apex of the hierarchically organized and multidimensionally structured self-concept (Shavelson, Hubner, & Stanton, 1976). Moving from the top to the bottom, the term 'self-concept' is reserved for evaluations in discrete domains such as academic, social, emotional and physical domains, and thus refers to domain-specific self-perceptions or self-conceptions (Harter, 2012). In recent years, various scientific disciplines (e.g. educational, sport or developmental psychology) have adopted a multidimensional perspective by the fact that domain-specific self-perceptions are

more suitable for predicting specific behavior (Marsh & O'Mara, 2008), that it is easier to influence specific facets through interventions (Schmidt, Valkanover, Roebbers, & Conzelmann, 2013), and that they are more strongly related to corresponding external criteria (Möller, Pohlmann, Köller, & Marsh, 2009). In addition, a multidimensional perspective of the self allows the relationship between domain-specific self-perceptions and global self-esteem to be examined, as well as their interdependence.

### Physical self-concept as a mediator between motor ability and self-esteem

Especially in the physical domain, there is interest in understanding the positive effect that sports and physical activities can have on global or specific domains of self-concept (Spence, McGannon, & Poon, 2005). In this context, the question arises, what mechanism is operating behind this relationship? One model that addresses this mechanism, adopting a multidimensional perspective, is the exercise and self-esteem model (EXSEM; Sonstroem & Morgan, 1989). The original EXSEM describes the mechanism as a bottom-up process in which mastery of a physical

\* Corresponding author. Tel.: +41 31 631 83 52.

E-mail addresses: [mirko.schmidt@ispw.unibe.ch](mailto:mirko.schmidt@ispw.unibe.ch) (M. Schmidt), [markus.blum@ispw.unibe.ch](mailto:markus.blum@ispw.unibe.ch) (M. Blum), [stefan.valkanover@ispw.unibe.ch](mailto:stefan.valkanover@ispw.unibe.ch) (S. Valkanover), [achim.conzelmann@ispw.unibe.ch](mailto:achim.conzelmann@ispw.unibe.ch) (A. Conzelmann).

activity initially strengthens physical self-efficacy, thus leading to an increase in perceived physical competence, and ultimately influences global self-esteem through the mediation of physical acceptance. The expanded model (Sonstroem, Harlow, & Josephs, 1994) includes two levels of perceived physical competence (operationalized by the Physical Self-Perception Profile, PSPP): general physical self-worth as a more global domain, and perceived sport competence, physical condition, an attractive body and strength as more specific subdomains in the hierarchical model of global self-esteem. The EXSEM has been repeatedly tested empirically, particularly on adult samples but never in children and adolescents (Caruso & Gill, 1992; Elavsky, 2010; Fox, 2000; Levy & Ebbeck, 2005; Sonstroem et al., 1994). However, even if no empirical studies have tested the EXSEM in child samples – and this is not the aim of the present study either – it nevertheless seems probable that the connection between the constructs will be similar there too. In particular, both the original and the expanded EXSEM emphasize that the positive effect exerted by physical self-concept, defined as the degree of satisfaction with one's own body (Marsh, Richards, Johnson, Roche, & Tremayne, 1994), on global self-esteem plays an outstanding role in the outlined process (Fox, 2000). No matter at which developmental level and no matter in which country it is examined, physical self-concept is consistently found to be strongly related to global self-esteem in both girls and boys (Harter, 2012). On some occasions, physical self-concept has been found to act as a mediator between physical activity and self-esteem in adolescents (Bowker, 2006; Haugen, Säfvenbom, & Ommundsen, 2011), lending further support that the mechanism proposed by the EXSEM is also relevant for younger populations.

Physical self-concept as a predictor of global self-esteem is fed not only by the amount of physical activity but, particularly in childhood, from other sources too. Thus correlates of physical activity, such as lack of body fat, physical fitness or motor ability, are positively associated with physical self-concept (Haugen, Ommundsen, & Seiler, 2013; Vedul-Kjelsås, Sigmundsson, Stensdotter, & Haga, 2011). Of these, particularly motor ability, which is conceptualized as a person's ability to perform different motor skills (Kent, 2006), takes on a special position in the development of children and adolescents (Skinner & Piek, 2001). It not only influences physical self-concept as a domain-specific form of self-esteem, but also more global determinants of mental health: It is known, for example, that children with poor motor abilities tend to have lower self-esteem or generally display less life satisfaction (Piek, Baynam, & Barrett, 2006). Furthermore, besides a certain level of motor skills, a certain level of motor abilities is necessary in order to take part in physical activities in the first place, which in turn promote positive health outcomes (Stodden et al., 2008; Vedul-Kjelsås et al., 2011). This is reflected by the fact that children and adolescents with strong motor abilities are more physically active than those with poor motor abilities (Hands, Larkin, Parker, Straker, & Perry, 2009). Although motor ability appears to play such an important role for successful development in childhood and adolescence, and is linked to both physical self-concept and global self-esteem, we are not aware of any studies in which motor ability has been included in a mediation model predicting global self-esteem. This is even more astonishing when one considers that one of the hypotheses explaining the relationship between physical activity and self-esteem is an improvement in actual motor abilities, which in turn leads to enhanced physical self-concept and ultimately influences general self-esteem (Fox, 2000). For this reason, this study will focus on the contribution to global self-esteem made by motor ability as mediated through physical self-concept. In doing so, physical self-concept will be assumed to be one of two potential mediators between motor ability and self-esteem.

### Perceived social acceptance as a mediator between motor ability and self-esteem

In addition to the physical component, there is a second important factor that seems to determine the level of self-esteem, especially in early adolescence: perceived social acceptance (Harter, 2012). Believing that one is liked by others has a positive impact on self-esteem. On the other hand, an absence of support from parents or peers can lead to pathologically low levels of self-esteem. Thus, perceived social acceptance is, in addition to physical self-concept, another important predictor of global self-esteem in early adolescence (Granleese & Joseph, 1994). According to the sociometer hypothesis (Leary, Terdal, Tambor, & Downs, 1995), self-esteem even serves as a monitor for social acceptance. This hypothesis is supported by findings which show that self-esteem varies depending on the responses of others (Denissen, Penke, Schmitt, & van Aken, 2008; Thomaes et al., 2010). The latter authors found, for example, that peer approval significantly increases whereas peer disapproval significantly decreases the self-esteem of 11-year-olds, showing that children's self-esteem depends strongly on how much they are liked by their peers.

The majority of children and adolescents report regularly taking part in sports during their leisure time and physical activity often reaches a peak during the transition into adolescence, about 11–14 years of age in boys and 10–12 years of age in girls (Malina & Little, 2008). One way of gaining peer acceptance is to be competent in an activity that is valued highly by children of the same age (Evans & Roberts, 1987). Therefore, participation in sports can be a context in which children can satisfy their need for affiliation, acceptance and popularity among their peers. Previous research has shown that children's physical activity, and their perceived and actual motor competence, are associated with perceived social acceptance (Daniels & Leaper, 2006).

There is striking evidence that being good at sports and being physically skillful are important factors, primarily for male popularity (Chase & Dummer, 1992; Chase & Machida, 2011; Evans & Roberts, 1987). Boys tend more often to play in large groups, whereas girls engage more in dyadic interactions and maintain more intimate relationships (Rose & Rudolph, 2006; Smith, Van Gessel, David-Ferdon, & Kistner, 2013). The priority of peer status increases between childhood and adolescence, and this need for a reputation is more pronounced in boys than girls (LaFontana & Cillessen, 2010). This finding can be explained with reference to the role of peer groups in the course of development. As children become adolescents, they increasingly rely on peers for social comparison and emotional support (Harter, 2012). Not surprisingly, being rejected or disliked by peers can also lower self-esteem. Therefore, perceived social acceptance can be assumed to be another possible mediator between motor ability and self-esteem, especially in boys.

### Multiple mediation model

So while several studies have examined the connection between physical activity, participation, physical self-concept and self-esteem (Caruso & Gill, 1992; Elavsky, 2010; Fox, 2000; Levy & Ebbeck, 2005; Sonstroem et al., 1994) and have in some cases also performed mediation analyses in the process (Bowker, 2006; Haugen et al., 2011), we are only aware of one single study in which the mediating effect of perceived social acceptance between physical activity and self-esteem has been studied (Daniels & Leaper, 2006). Their analyses of longitudinal data showed that peer acceptance partially mediated the relationship between sport participation and global self-esteem in girls as well as in boys. However, hitherto no study has examined peer acceptance as a

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات